

WHAT IS CLAIMED IS:

1. A system for remodeling a mitral valve annulus, comprising:
a delivery catheter;
an implant, detachably carried by the delivery catheter, the implant reversibly movable between a first, flexible configuration for delivery to a site adjacent the annulus of the mitral valve and a second, rigid configuration for remodeling the mitral valve annulus; and
a control on the catheter for reversibly transforming the implant between the first flexible configuration and the second remodeling configuration.
2. A system as in Claim 1, wherein the implant comprises an arc when in the remodeling configuration.
3. A system as in Claim 2, wherein a best fit constant radius curve corresponding to the arc has a radius within the range of from about 10 mm to about 20 mm.
4. A system as in Claim 2, wherein the implant comprises a compound curve when in the remodeling configuration.
5. A system as in Claim 4, wherein the compound curve comprises a "w" configuration.
6. A system as in Claim 1, further comprising a coating on the implant.
7. A system as in Claim 1, further comprising an anchor for retaining the implant at a deployment site.
8. A system as in Claim 7, wherein the anchor comprises a distal extension of the implant.
9. A system as in Claim 7, wherein the anchor comprises a friction enhancing surface structure for engaging adjacent tissue.
10. A system as in Claim 7, wherein the anchor comprises at least one barb for piercing the wall of the vessel.
11. A system as in Claim 10, wherein the barb is moveable between an axial orientation and an inclined orientation.